

REMARKS

The application has not been amended.

Claims 18-28 and 37-50 remain pending in the application. Claims 1-17 and 27-36 were previously canceled. Reconsideration and allowance of all of the claims is respectfully requested in view of the following remarks.

In regard to Rejection of Claims 18-20, 24-28, 37-41 and 45-50 Under 35 USC § 103(a)

The Examiner has rejected claims 18-20, 24-28, 37-41 and 45-50 under 35 U.S.C. § 103(a), as being unpatentable over Koerner, U.S. Patent No. 6,820,584, in view of Bouse, U.S. Publication No. 2004/0019461. The Applicants disagree.

The Examiner's attention is directed to the following feature of claim 18:

wherein the set of indicators provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

and the following feature of claim 38:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

The Applicants submit that at least the above features of claims 18 and 38 are not taught by Koerner.

On page 2 of the rejection, the Examiner states that

Koerner discloses a conventional outboard motor ... wherein the indicator provides at least one form of feedback to a user regarding at least one of an operational condition at start-up and an operational condition during running.

The Examiner is requested to note that, as a result of the amendment filed on October 5, 2007, the independent claims do not recite providing feedback regarding at least one of an operational condition at start-up and an operational condition during running. The

independent claims now recite feedback regarding at least an operational condition at engine start-up.

Bearing this in mind, the Examiner is requested to review paragraphs 6-13 of the declaration of Mark Skrzypchak filed herewith, regarding engine start-up, from which the following is taken:

I understand the expression “engine start-up” to refer to the period of time during which the engine is operating in the start-up mode, prior to entering the running mode.

The start-up mode of an engine is initiated when an operator first attempts to start the engine.

[...]

The start-up mode typically includes the first few cranks (revolutions) of the engine, which are externally powered, for example by either a rope starter or a starter motor, before the engine produces enough power to sustain its own operation.

[...]

The running mode of an engine is characterized primarily by the combustion of fuel in the combustion chamber(s) of the engine producing sufficient power to maintain the engine running at its idle speed. During the running mode, the engine typically produces sufficient additional power to drive a load, such as a vehicle, a generator or factory machinery. The engine also produces sufficient additional power to drive various systems related to the engine, such as one or more oil pumps.

It is apparent that engine start-up refers to the period when an engine is in the start-up mode, before the engine produces sufficient power to sustain its own operation and drive an external load such as an oil pump. As such, an engine that is capable of sustained operation while powering an oil pump is in a running mode and is no longer in engine start-up.

Bearing this in mind, the Examiner is requested to review paragraphs 15-16 of the declaration of Mark Skrzypchak filed herewith, regarding the teachings of Koerner, from which the following is taken:

[T]he ECU 22 of Koerner transmits a fault signal [to the] warning system 40 when a malfunction in the distribution manifold 44 is detected, resulting in a low oil pressure condition. I also understand that oil is supplied to the distribution manifold 44 by a mechanical oil pump 36 that is

powered by the engine 12. As such, I understand that the distribution manifold 44 operates only during a running mode of the engine 12.

[...]

[T]he engine parameters of Koerner are monitored on a regular basis at step 101. The operating parameters monitored by Koerner are usually characteristic of an engine in a running mode. As I understand it, these engine parameters typically would not be monitored when an engine is in the start-up mode. As such, I understand Koerner to monitor the engine 12 during a running mode and not during engine start-up.

It is apparent that Koerner teaches notifying an operator or technician of low oil pressure conditions during a running mode of the engine, and not during a start-up mode. As such, the fault signal of Koerner is indicative of a fault that occurs only during the running mode and not during engine start-up. Therefore, Koerner does not teach providing feedback to a user regarding an operational condition at engine start-up.

This deficiency in Koerner is not remedied by Bouse, without admitting that Bouse can be combined with Koerner and reserving the right to argue thereagainst in the future.

The Examiner is requested to review paragraph 17 of the declaration of Mark Skrzypchak filed herewith, regarding the teachings of Bouse, from which the following is taken:

The diagnostic unit 44 of Bouse receives signals from the sensors 46 during operation of the equipment in the plant 10, and detects conditions associated with the continued running of the rotating equipment. As such, the motor 206 of Bouse is producing sufficient power to maintain the rotating equipment of Bouse in continued operation, which indicates that the motor 206 is in a running mode. Therefore, Bouse provides feedback regarding an operational condition during a running mode and not at engine start-up.

It is apparent that the diagnostic unit 44 of Bouse detects, and provides feedback regarding, the conditions associated with the continued running of the rotating equipment. As such, Bouse teaches providing feedback regarding the continued running of equipment that is already running and powered by the motor 206 of Bouse, which occurs only during a running

mode of the motor 206, and not during engine start-up. Therefore, Bouse does not teach providing feedback to a user regarding an operational condition at engine start-up.

This deficiency in Koerner is also not remedied by the Examiner's assertion that "it would be an obvious matter of mechanical design" to provide a fault indication at start-up "since the fault indicator was [used] to inform the malfunction."

Each of the references cited by the Examiner teaches a fault indicator providing feedback regarding an operational condition during a running mode, for monitoring the status of a system powered by an engine during the running mode. None of the references makes any mention of providing feedback regarding an operational condition during a start-up mode, nor of an operating condition for which feedback would be provided during a start-up mode. As such, the Examiner has not made a factual showing that modifying either Koerner or Bouse to provide feedback regarding an operational condition at engine start-up would be an obvious matter of mechanical design. Therefore, it is believed that the Examiner has not met his burden to establish a *prima facie* case of obviousness under MPEP § 2142.

Therefore, at least one feature of claims 18 and 38 is not taught by Koerner or Bouse, alone or in combination, which combination is not admitted. As such, the Examiner is requested to withdraw his rejection of claim 18 and claims 19, 20, 24-28 and 37 depending therefrom, as well as claim 38 and claims 39-41 and 45-50 depending therefrom.

In regard to Rejection of Claims 38-40, 45 and 47-49 Under 35 USC § 103(a)

The Examiner has rejected claims 38-40, 45 and 47-49 under 35 U.S.C. § 103(a), as being unpatentable over Koerner. The Applicants disagree.

The Examiner's attention is directed to the following feature of claim 38:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

As discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50, the above feature of claim 38 is not taught by Koerner, and this deficiency in Koerner is not remedied by the Examiner's assertion that "it would be an obvious matter of mechanical design" to

provide a fault indication at start-up “since the fault indicator was [used] to inform the malfunction.”

Therefore, at least one feature of claim 38 is not taught by Koerner or the Examiner’s assertion, alone or in combination. As such, the Examiner is requested to withdraw his rejection of claim 38 and claims 39, 40, 45 and 47-49 depending therefrom.

In regard to Rejection of Claims 18-24, 26-28, 37, 41-44 and 50 Under 35 USC § 103(a)

The Examiner has rejected claims 18-24, 26-28, 37, 41-44 and 50 under 35 U.S.C. § 103(a), as being unpatentable over Koerner in view of Renz, U.S. Patent No. 3,960,011. The Applicants disagree.

The Examiner’s attention is directed to the following feature of claim 18:

wherein the set of indicators provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

and the following feature of claim 38:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

As discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50, the above features of claims 18 and 38 are not taught by Koerner, and this deficiency in Koerner is not remedied by the Examiner’s assertion that “it would be an obvious matter of mechanical design” to provide a fault indication at start-up “since the fault indicator was [used] to inform the malfunction.”

This deficiency in Koerner is not remedied by Renz, without admitting that Renz can be combined with Koerner and reserving the right to argue thereagainst in the future.

Referring to lines 5-10 of column 1 of Renz, Renz

relates to monitoring and annunciating systems and, more particularly, to such systems used to monitor the operation of an internal combustion engine, such as a diesel engine or the like, and to annunciate which of a plurality of monitored

operating parameters or conditions has caused engine shut down.

It is apparent that Renz teaches monitoring an engine during its operation to determine a cause of engine shut down. Renz makes no mention of feedback regarding an operational condition at engine start-up. Therefore, Renz does not teach providing at least one form of feedback to a user regarding at least an operational condition at engine start-up.

Therefore, at least one feature of claims 18 and 38 is not taught by Koerner or Renz, alone or in combination, which combination is not admitted. As such, the Examiner is requested to withdraw his rejection of claim 18 and claims 19-24, 26-28 and 37 depending therefrom, as well as claims 41-44 and 50 depending from claim 38.

In regard to Rejection of Claims 25 and 46 Under 35 USC § 103(a)

The Examiner has rejected claims 25 and 46 under 35 U.S.C. § 103(a), as being unpatentable over Koerner in view of Renz, and further in view of Boisvert, U.S. Patent No. 5,729,456. The Applicants believe this rejection has been addressed and overcome by the present amendment.

Claims 25 and 46 are believed to be allowable in view of their dependency from claims 18 and 38, respectively, for the reasons discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50 regarding Koerner, and the additional reasons discussed above with respect to claims 18-24, 26-28, 37, 41-44 and 50 regarding Renz, as well as for the additional features recited therein. As such, the Examiner is requested to withdraw his rejection of claims 25 and 46.

In view of the above remarks, the Applicants respectfully submit that all of the currently pending claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in a better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

At the time of filing of the present response, the Office was authorized to charge the fees believed to be necessary to a credit card. In case of any under- or over-payment or should any additional fee be otherwise necessary, the Office is hereby authorized to credit or debit (as the case may be) Deposit Account number 502977.

Respectfully submitted,

/ Jonathan David Cutler /

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